

ABSTRACT

An apparatus and method of detection and visualization of an infrared laser beam using an optically transparent or opaque solid medium doped with at least one active chromophore dye molecule to provide conversion of infrared radiation to visible light by means of two or three-photon absorption followed by emission of a visible photon is provided. A method of verifying mode-lock in mode-locked infrared laser sources and measuring the temporal and spatial shape of ultra short laser pulses having pulse durations between a few femtoseconds and hundreds of picoseconds is also provided.